

# MATH 113

## College Algebra

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**Course description:** Fundamental algebraic operations, linear and quadratic equations and inequalities with applications, radical and rational equations, functions (exponential and logarithmic), graphing, zeros of polynomials, systems of equations and inequalities. This course has been identified as a general education course.

**Prerequisites:** Successful completion of MATH 092, or Math Enhanced ACT score of at least 19; or permission of DMCS department head. Two years of high school algebra are recommended.

**Text:** *College Algebra (custom edition)* by Lial, Hornsby and Schneider (2005), Brooks/Cole Publishing Co. (There is a student's solution manual to accompany the text.)

**Calculator:** The *Casio 9750G Plus* will be used for classroom demonstrations. It is recommended that you check with the instructor before using a calculator other than the *Casio 9750G Plus* for this class. Some testing will be conducted without the use of the calculator.

For details about **your** instructor's contact information, office hours, and policies, go to <http://www.faculty.mcneese.edu/> and access your instructor's website.

### General Education Competency

The General Education Competency assessed in this course: To understand numerical data and statistics.

### Student Learning Outcomes

The student will be able to

- collect, organize, and interpret numerical data in various forms;
- demonstrate computational skills necessary for problem solving and mathematical modeling;
- create, interpret, and revise models to solve problems;
- demonstrate knowledge and skills specific to course content as outlined in the objectives listed below.

### Objectives

The student will be able to

- solve linear equations, rational equations, and quadratic equations with applications;
- solve absolute value equations with applications and equations involving radicals;
- perform fundamental operations with functions;
- determine zeroes of polynomials;
- find inverse of functions;

- graph functions including exponential and logarithmic functions;
- solve exponential and logarithmic equations with applications;
- perform basic operations with complex numbers;
- solve system of equations and inequalities.

## MyMathLab

MyMathLab is a web-based interactive tool (also known as CourseCompass) which requires the use of Internet Explorer. It is designed to allow the student to do homework and take quizzes and tests online; these are primary components of the final grade. In the homework sets, the student will be allowed unlimited attempts at each problem, provided they are completed by the due date. Students are given two attempts at each quiz. No late homework or quizzes will be accepted. Students must complete an average of 2 hours of lab time per week, or a total of 30 hours per semester.

## Course material

Course material will include the following topics:

TOPIC	CHPT.	SECTIONS	APPROX. TIME
Equations and inequalities	Ch. 1	1–8	~ 3.5 weeks
Graphs and functions	Ch. 2	1–6	~ 2.5 weeks
Polynomial and rational functions	Ch. 3	1–3, 5	~ 2.5 weeks
Exponential and logarithmic functions	Ch. 4	1–6	~ 3.5 weeks
Systems and matrices	Ch. 5	1, 2	~ 2 weeks

Additional topics may be covered, at the discretion of the instructor as needed during the course.

## Assessment

The Semester score for the course will be calculated by using the weights (%) indicated below:

WEIGHT (%)	
45%	Tests
25%	Final Exam
15%	Homework
10%	Quizzes
5%	MathLab

The Semester letter grade in the course will be assigned according to the scale below:

SEMESTER GRADE	SEMESTER SCORE
90–100	A
80–89	B
70–79	C
60–69	D
0–59	F

**Notes:**

1. The final exam will be a departmental exam.
2. A student who scores below 60 on the final exam and below 60 for the semester grade for the course will receive a mark of F in the course.
3. A student who scores below 60 on the final exam, but scores 60 or better for the semester grade for the course will be given one chance to retake the final exam before the semester mark is assigned.
4. A student who scores at least 60 on the final exam will receive a minimum mark of D in the course.
5. In the case of an **excused** absence, the instructor reserves the right to reweight the final exam in lieu of a make-up test.
6. In the case where a student's score on his final exam indicates **exceptional achievement** above and beyond that indicated by the semester average, the instructor reserves the right to reweigh the value of the final exam in computing the semester grade.

A STUDENT WILL RECEIVE A PASSING MARK IF, AND ONLY IF, THE STUDENT PASSES THE FINAL EXAM WITH A 60 OR BETTER.

Please read the Department's [Attendance Policy](#).

**Instructor's office hours** can be found on the MSU web site at

<http://www.faculty.mcneese.edu/>

Click on individual instructor to view their web page. Or navigate from MSU Home Page; select *Faculty & Staff*, select *Faculty Web Server*.

Students should visit the MSU web page at

<http://www.mcneese.edu/policy/diversity.htm>

for information about diversity awareness and sexual harassment policies and procedures, as well as the Americans with Disabilities Act.

Students should also visit the MSU web page at

<http://www.mcneese.edu/integrity>

for information on the Academic Integrity Policy.

ANY STUDENT WITH A DISABILITY IS ENCOURAGED TO CONTACT THE OFFICE OF SERVICES FOR STUDENTS WITH DISABILITIES IN DREW HALL, ROOM 200, VOICE (337) 475-5916, HEARING IMPAIRED (337) 475-5722. IT IS EACH STUDENT'S RESPONSIBILITY TO REGISTER WITH THE OFFICE OF SERVICES FOR STUDENTS WITH DISABILITIES WHEN REQUESTING A REASONABLE ACCOMMODATION.

One week of summer school is equivalent to 2 ½ weeks of Fall or Spring classes

**DMCS**

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